Computer Methods in Applied Mechanics and Engineering 89 (1991) 557–559
North-Holland

Author index of Volume 89*

Argyris, J., I.St. Doltsinis, H. Friz and J. Urban, An exploration of chemically reacting viscous hypersonic flow (1–3) 85–128
Auweter-Kurtz, M., see Gogel, T.H. (1–3) 425–434

Balasubramanian, B., M. Svoboda and W. Bauer, Structural optimization of I.C. engines subjected to mechanical and thermal loads (1–3) 337–360
Bauer, W., see Balasubramanian, B. (1–3) 337–360
Bendsøe, M.P., see Olhoff, N. (1–3) 259–279
Bergman, C.M. and J.B. Vos, Parallelization of CFD codes (1–3) 523–528
Boerstoel, J.W. and S.P. Spekreyse, An information system for the numerical simulation of 3D Euler flows around aircraft (1–3) 237–257
Bottaro, A., I.L. Rhyming, M.B. Wehrli, F.S. Rys and P. Rys, Laminar swirling flow and vortex breakdown in a pipe (1–3) 41–57
Brauchli, H., see Haas, R. (1–3) 543–556

Cardona, A., M. Geradin and D.B. Doan, Rigid and flexible joint modelling in multibody dynamics using finite elements (1–3) 395–418
Chen, L., see Kamel, H.A. (1–3) 485–496
Cochelin, B. and M. Potier-Ferry, A numerical model for buckling and growth of delaminations in composite laminates (1–3) 361–380

Decker, K.M., The Monte Carlo method in science and engineering: Theory and application (1–3) 463–483
Demkowicz, L., see Oden, J.T. (1–3) 11–40
Doan, D.B., see Cardona, A. (1–3) 395–418
Doltsinis, I.St., see Argyris, J. (1–3) 85–128
Doltsinis, I.St. and S. Nölting, Studies on parallel processing for coupled field problems (1–3) 497–521

Ewing, R.E., J. Shen and J. Wang, Application of superconvergence to problems in the simulation of miscible displacement (1–3) 73–84

Felicelli, S., see Heinrich, J.C. (1–3) 435–461
Foale, S. and J.M.T. Thompson, Geometrical concepts and computational techniques of nonlinear dynamics (1–3) 381–394
Friz, H., see Argyris, J. (1–3) 85–128

* The issue number is given in front of the page numbers.

Geradin, M., see Cardona, A. (1–3) 395–418
Gogel, T.H., M. Auweter-Kurtz, T.M. Gölz, E.W. Messerschmid, H.O. Schrade and P.C. Sleziona, Numerical study of high enthalpy flow in a plasma wind tunnel (1–3) 425–434
Gölz, T.M., see Gogel, T.H. (1–3) 425–434

Haas, R. and H. Brauchli, Fast solver for plane potential problems with mixed boundary conditions (1–3) 543–556
Hanine, F. and A. Kourta, Performance of turbulence models to predict supersonic boundary layer flows (1–3) 221–235
Heinrich, J.C., S. Felicelli and D.R. Poirier, Vertical solidification of dendritic binary alloys (1–3) 435–461
Hughes, T.J.R., see Shakib, F. (1–3) 141–219

Johan, Z., see Shakib, F. (1–3) 141–219

Kamel, H.A. and L. Chen, Integration of solid modeling and finite element generation (1–3) 485–496
Kourta, A., see Hanine, F. (1–3) 221–235

Lega, J., Defect-mediated turbulence (1–3) 419–424
Lions, J.L., Earth system models and mathematical remarks (1–3) 1–9

Messerschmid, E.W., see Gogel, T.H. (1–3) 425–434

Nölting, S., see Doltsinis, I.St. (1–3) 497–521

Oden, J.T. and L. Demkowicz, $h-p$ adaptive finite element methods in computational fluid dynamics (1–3) 11–40
Olhoff, N., M.P. Bendsøe and J. Rasmussen, On CAD-integrated structural topology and design optimization (1–3) 259–279

Pelz, R.B., Fourier spectral method on ensemble architectures (1–3) 529–542
Poirier, D.R., see Heinrich, J.C. (1–3) 435–461
Potier-Ferry, M., see Cochelin, B. (1–3) 361–380

Rasmussen, J., see Olhoff, N. (1–3) 259–279
Rhyming, I.L., see Bottaro, A. (1–3) 41–57
Rozvany, G.I.N. and M. Zhou, The COC algorithm, Part I: Cross-section optimization or sizing (1–3) 281–308
Rozvany, G.I.N., see Zhou, M. (1–3) 309–336
Rys, F.S., see Bottaro, A. (1–3) 41–57
Rys, P., see Bottaro, A. (1–3) 41–57

Sawley, M.L. and S. Wüthrich, Non-equilibrium hypersonic flow simulations using the second-order boundary layer equations (1–3) 129–140

Schrade, H.O., see Gogel, T.H. (1 – 3) 425 – 434
Shakib, F., T.J.R. Hughes and Z. Johan, A new finite element formulation for computational fluid dynamics: X. The compressible Euler and Navier – Stokes equations (1 – 3) 141 – 219
Shen, J., see Ewing, R.E. (1 – 3) 73 – 84
Sleziona, P.C., see Gogel, T.H. (1 – 3) 425 – 434
Spekreyse, S.P., see Boerstoel, J.W. (1 – 3) 237 – 257
Svoboda, M., see Balasubramanian, B. (1 – 3) 337 – 360

Thompson, J.M.T., see Foale, S. (1 – 3) 381 – 394

Urban, J., see Argyris, J. (1 – 3) 85 – 128

Vos, J.B., see Bergman, C.M. (1 – 3) 523 – 528

Wang, J., see Ewing, R.E. (1 – 3) 73 – 84
Wehrli, M.B., see Bottaro, A. (1 – 3) 41 – 57
Wüthrich, S., see Sawley, M.L. (1 – 3) 129 – 140

Yamamoto, Y., Numerical simulation of hypersonic viscous flow for the design of H – II orbiting plane (HOPE) (1 – 3) 59 – 72

Zhou, M., see Rozvany, G.I.N. (1 – 3) 281 – 308
Zhou, M. and G.I.N. Rozvany, The COC algorithm, Part II: Topological, geometrical and generalized shape optimization (1 – 3) 309 – 336

Computer Methods in Applied Mechanics and Engineering 89 (1991) 561–565
North-Holland

Subject index of Volume 89*

Boundary layers

Non-equilibrium hypersonic flow simulations using the second-order boundary layer equations, M.L. Sawley and S. Wüthrich (1–3) 129–140
Performance of turbulence models to predict supersonic boundary layer flows, F. Hanine and A. Kourta (1–3) 221–235

Conformal mapping

Fast solver for plane potential problems with mixed boundary conditions, R. Haas and H. Brauchli (1–3) 543–556

Coupled problems

Structural optimization of I.C. engines subjected to mechanical and thermal loads, B. Balasubramanian, M. Svoboda and W. Bauer (1–3) 337–360
Numerical study of high enthalpy flow in a plasma wind tunnel, T.H. Gogel, M. Auweter-Kurtz, T.M. Gölz, E.W. Messerschmid, H.O. Schrade and P.C. Sleziona (1–3) 425–434
Studies on parallel processing for coupled field problems, I.St. Doltsinis and S. Nölting (1–3) 497–521

Dynamics

Geometrical concepts and computational techniques of nonlinear dynamics, S. Foale and J.M.T. Thompson (1–3) 381–394
Rigid and flexible joint modelling in multibody dynamics using finite elements, A. Cardona, M. Geradin and D.B. Doan (1–3) 395–418

Finite difference methods

Numerical study of high enthalpy flow in a plasma wind tunnel, T.H. Gogel, M. Auweter-Kurtz, T.M. Gölz, E.W. Messerschmid, H.O. Schrade and P.C. Sleziona (1–3) 425–434
Parallelization of CFD codes, C.M. Bergman and J.B. Vos (1–3) 523–528

* The issue number is given in front of the page numbers.

Finite element and matrix methods

$h-p$ adaptive finite element methods in computational fluid dynamics, J.T. Oden and L. Demkowicz (1–3) 11– 40
Application of superconvergence to problems in the simulation of miscible displacement, R.E. Ewing, J. Shen and J. Wang (1–3) 73– 84
An exploration of chemically reacting viscous hypersonic flow, J. Argyris, I.St. Doltsinis, H. Friz and J. Urban (1–3) 85–128
A new finite element formulation for computational fluid dynamics: X. The compressible Euler and Navier–Stokes equations, F. Shakib, T.J.R. Hughes and Z. Johan (1–3) 141–219
On CAD-integrated structural topology and design optimization, N. Olhoff, M.P. Bendsøe and J. Rasmussen (1–3) 259–279
The COC algorithm, Part I: Cross-section optimization or sizing, G.I.N. Rozvany and M. Zhou (1–3) 281–308
The COC algorithm, Part II: Topological, geometrical and generalized shape optimization, M. Zhou and G.I.N. Rozvany (1–3) 309–336
Structural optimization of I.C. engines subjected to mechanical and thermal loads, B. Balasubramanian, M. Svoboda and W. Bauer (1–3) 337–360
Rigid and flexible joint modelling in multibody dynamics using finite elements, A. Cardona, M. Geradin and D.B. Doan (1–3) 395–418
Vertical solidification of dendritic binary alloys, J.C. Heinrich, S. Felicelli and D.R. Poirier (1–3) 435–461
Studies on parallel processing for coupled field problems, I.St. Doltsinis and S. Nölting (1–3) 497–521

Fluid mechanics

$h-p$ adaptive finite element methods in computational fluid dynamics, J.T. Oden and L. Demkowicz (1–3) 11– 40
Laminar swirling flow and vortex breakdown in a pipe, A. Bottaro, I.L. Rhyming, M.B. Wehrli, F.S. Rys and P. Rys (1–3) 41– 57
Numerical simulation of hypersonic viscous flow for the design of H–II orbiting plane (HOPE), Y. Yamamoto (1–3) 59– 72
Application of superconvergence to problems in the simulation of miscible displacement, R.E. Ewing, J. Shen and J. Wang (1–3) 73– 84
A new finite element formulation for computational fluid dynamics: X. The compressible Euler and Navier–Stokes equations, F. Shakib, T.J.R. Hughes and Z. Johan (1–3) 141–219
Fourier spectral method on ensemble architectures, R.B. Pelz (1–3) 529–542

Gas dynamics

An exploration of chemically reacting viscous hypersonic flow, J. Argyris, I.St. Doltsinis, H. Friz and J. Urban (1–3) 85–128

General Rayleigh–Ritz and Galerkin techniques

A new finite element formulation for computational fluid dynamics: X. The compressible Euler and Navier–Stokes equations, F. Shakib, T.J.R. Hugher and Z. Johan (1–3) 141–219

Incompressible and near incompressible media

Laminar swirling flow and vortex breakdown in a pipe, A. Bottaro, I.L. Rhyming, M.B. Wehrli, F.S. Rys and P. Rys (1–3) 41– 57
Application of superconvergence to problems in the simulation of miscible displacement, R.E. Ewing, J. Shen and J. Wang (1–3) 73– 84

Material physics

Vertical solidification of dendritic binary alloys, J.C. Heinrich, S. Felicelli and D.R. Poirier (1–3) 435–461

Modern computer architecture

An information system for the numerical simulation of 3D Euler flows around aircraft, J.W. Boerstoel en S.P. Spekreyse (1–3) 237–257
Studies on parellel processing for coupled field problems, I.St. Doltsinis and S. Nölting (1–3) 497–521
Parallelization of CFD codes, C.M. Bergman and J.B. Vos (1–3) 523–528
Fourier spectral method on ensemble architectures, R.B. Pelz (1–3) 529–542

Nonlinear mechanics

Studies on parallel processing for coupled field problems, I.St. Doltsinis and S. Nölting (1–3) 497–521

Numerical solution procedures

h–p adaptive finite element methods in computational fluid dynamics, J.T. Oden and L. Demkowicz (1–3) 11– 40
Geometrical concepts and computational techniques of nonlinear dynamics, S. Foale and J.M.T. Thompson (1–3) 381–394
The Monte Carlo method in science and engineering: Theory and application, K.M. Decker (1–3) 463–483
Integration of solid modeling and finite element generation, H.A. Kamel and L. Chen (1–3) 485–496
Fast solver for plane potential problems with mixed boundary conditions, R. Haas and H. Brauchli (1–3) 543–556

Optimization

The COC algorithm, Part I: Cross-section optimization or sizing, G.I.N. Rozvany and M. Zhou (1 – 3) 281 – 308
The COC algorithm, Part II: Topological, geometrical and generalized shape optimization, M. Zhou and G.I.N. Rozvany (1 – 3) 309 – 336

Optimization and design of structures

On CAD-integrated structural topology and design optimization, N. Olhoff, M.P. Bendsøe and J. Rasmussen (1 – 3) 259 – 279
Structural optimization of I.C. engines subjected to mechanical and thermal loads, B. Balasubramanian, M. Svoboda and W. Bauer (1 – 3) 337 – 360

Phase changes

Vertical solidification of dendritic binary alloys, J.C. Heinrich, S. Felicelli and D.R. Poirier (1 – 3) 435 – 461

Problems in physics

Earth system models and mathematical remarks, J.L. Lions (1 – 3) 1 – 9

Shells and plates

A numerical model for buckling and growth of delaminations in composite laminates, B. Cochelin and M. Potier-Ferry (1 – 3) 361 – 380

Solution of integral equations (singularity method)

Fast solver for plane potential problems with mixed boundary conditions, R. Haas and H. Brauchli (1 – 3) 543 – 556

Solutions of ordinary and partial differential equations

An information system for the numerical simulation of 3D Euler flows around aircraft, J.W. Boerstoel and S.P. Spekreyse (1 – 3) 237 – 257

Stability in structural mechanics

A numerical model for buckling and growth of delaminations in composite laminates, B. Cochelin and M. Potier-Ferry (1 – 3) 361 – 380

Stochastic processes

The Monte Carlo method in science and engineering: Theory and application, K.M. Decker (1 – 3) 463 – 483

Structural mechanics

Rigid and flexible joint modelling in multibody dynamics using finite elements, A. Cardona, M. Geradin and D.B. Doan (1–3) 395–418
Integration of solid modeling and finite element generation, H.A. Kamel and L. Chen (1–3) 485–496

Subsonic flow

An information system for the numerical simulation of 3D Euler flows around aircraft, J.W. Boerstoel and S.P. Spekreyse (1–3) 237–257

Supersonic flow

An exploration of chemically reacting viscous hypersonic flow, J. Argyris, I.St. Doltsinis, H. Friz and J. Urban (1–3) 85–128
Performance of turbulence models to predict supersonic boundary layer flows, F. Hanine and A. Kourta (1–3) 221–235

Thermal effects and thermodynamics

Non-equilibrium hypersonic flow simulations using the second-order boundary layer equations, M.L. Sawley and S. Wüthrich (1–3) 129–140

Transport phenomena

An exploration of chemically reacting viscous hypersonic flow, J. Argyris, I.St. Doltsinis, H. Friz and J. Urban (1–3) 85–128

Turbulence

Performance of turbulence models to predict supersonic boundary layer flows, F. Hanine and A. Kourta (1–3) 221–235
Defect-mediated turbulence, J. Lega (1–3) 419–424

Viscous flow

Numerical simulation of hypersonic viscous flow for the design of H–II orbiting plane (HOPE), Y. Yamamoto (1–3) 59–72
An exploration of chemically reacting viscous hypersonic flow, J. Argyris, I.St. Doltsinis, H. Friz and J. Urban (1–3) 85–128
Non-equilibrium hypersonic flow simulations using the second-order boundary layer equations, M.L. Sawley and S. Wüthrich (1–3) 129–140
Numerical study of high enthalpy flow in a plasma wind tunnel, T.H. Gogel, M. Auweter-Kurtz, T.M. Gölz, E.W. Messerschmid, H.O. Schrade and P.C. Sleziona (1–3) 425–434